

## 제4뇌실에서 발생한 비정형성 수막종

안 정 용 · 주 진 양

= Abstract =

Atypical Meningioma in the Fourth Ventricle  
- Case Report -

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The authors report a case of atypical meningioma in the fourth ventricle. Intraventricular meningioma is not uncommon intracranial neoplasm, especially that in the trigone of lateral ventricle, however, those in the third and fourth ventricle are very rare. There are only two cases of atypical meningiomas in the fourth ventricle among 29 cases of fourth ventricular meningiomas reported 17 literature. The clinical features, findings of magnetic resonance image and operation of our case, and review of literature are presented.

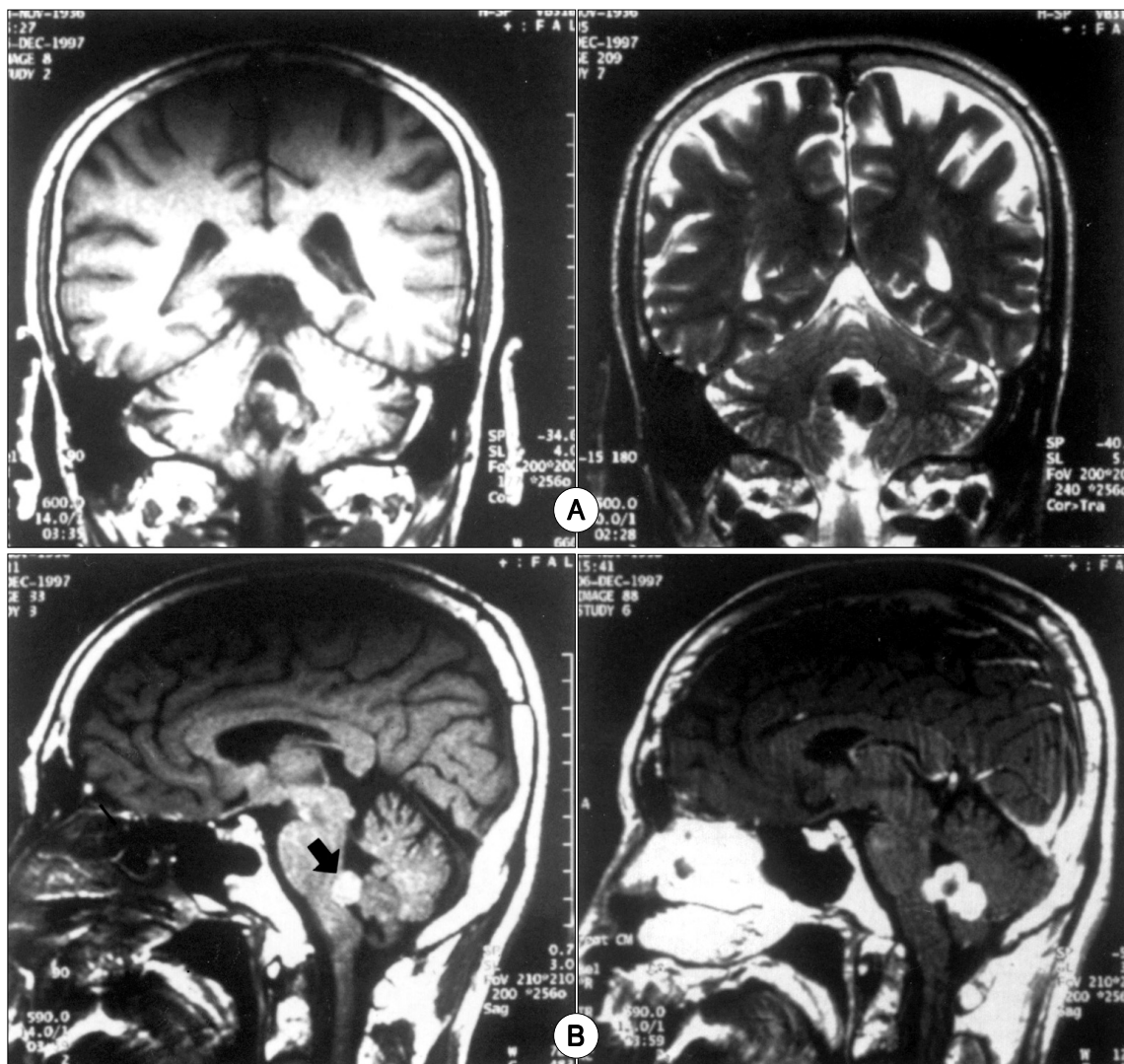
**KEY WORDS :** Intraventricular meningioma · Fourth ventricle · Atypical meningioma.

## 서 론

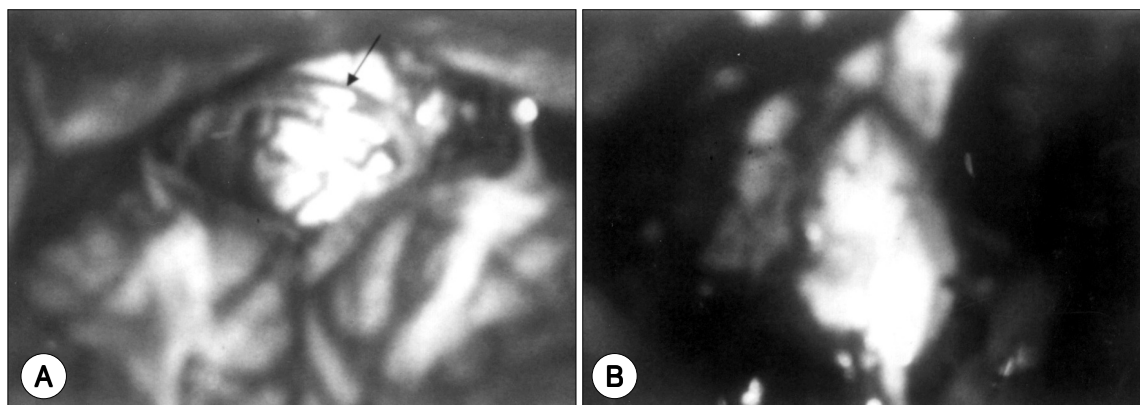
수막종은 뇌내종양의 15%를 차지하며, 특히 측두각의 삼각부에 많이 발생한다. 그러나 제3, 제4뇌실에서 발생하는 수막종은 매우 드물다. 문헌상 제4뇌실 수막종은 총 29건으로 보고된 바 있으며, 그 중 비정형성 수막종은 2건에 불과하다. 본 증례는 61세 남자 환자로, 1년간 지속된 두통과 구토를 주소로 입원한 환자이다. MRI 상에서 제4뇌실 내 2×2cm 크기의 등신강성 고신호를 보이며, T1, T2, Gad-contrast 강화상에서 고신호를 나타내었다. 수술 후 병리검사에서 비정형성 수막종으로 진단되었다.

## 증 례

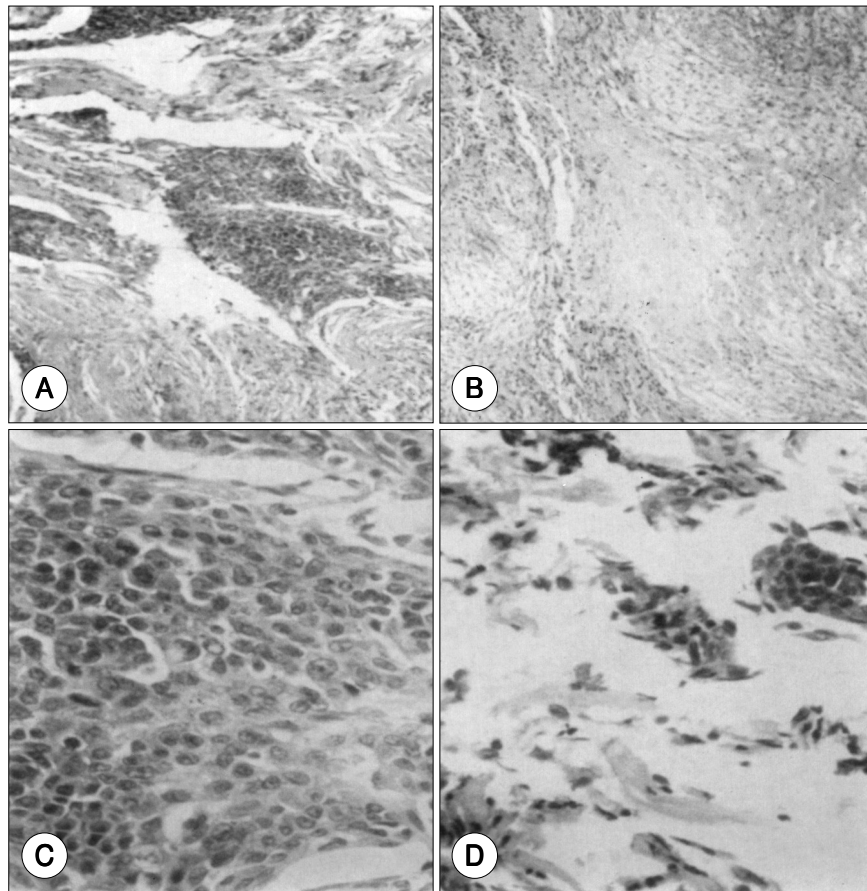
환자는 61세 남자 환자로, 1년간 지속된 두통과 구토를 주소로 입원하였다. 진찰상 특이 소견은 없었으며, 기본적인 검사상에서 특이 소견은 없었다. MRI 상에서 제4뇌실 내 2×2cm 크기의 등신강성 고신호를 보이며, T1, T2, Gad-contrast 강화상에서 고신호를 나타내었다. 수술 후 병리검사에서 비정형성 수막종으로 진단되었다.



**Fig. 1.** A : T1 and T2 coronal magnetic resonance images(upper). B : Sagittal magnetic resonance images before and after Gadolinium injection(lower). A mass lesion displacing the brain stem anteriorly and cerebellar tonsils inferiorly through the foramen magnum is seen in the inferior part of the fourth ventricle. The lobulated mass is homogeneously enhanced with Gadolinium. Hemorrhagic dot (arrow) is associated with tumor.



**Fig. 2.** A : Intraoperative photograph showing well encapsulated mass encircled by venous branch (arrow). B : Photograph showing fourth ventricle floor after total removal of tumor.



**Fig. 3.** Low-power photomicrograph showing meningeal cell sheets among capillaries(A) and focal necrotic area(B). High-power photomicrograph showing meningeal cells(C) and anaplastic cells(D) with high nucleus/cytoplasm ratio and 1 - 2 mitotic cells on each high power field ( $\times 10$ ).

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**Table 1.** Summary of reported cases of primary intraventricular meningioma of the 4th ventricle

Case	First author	Year	Age/Sex	Signs & symptoms	Diagnostic procedure	Extent of tumor removal	Histology
1	Sachs	1938	38/F	auditory disturbance	clinical examination	total	fibroblastic
2	Abbott	1942	15/M	headache, vomiting	clinical examination	partial	fibrous
3	Petit-Dutaillis	1950	55/F	vomiting, ataxia	PVG	total	not reported
4	Vogel	1950	65/M	asymptomatic	clinical examination	autopsy	meningotheial
5	Haas	1954	41/M	asymptomatic	clinical examination	autopsy	not reported
6	Zuleta	1955	8/M	headache, vomiting	PVG	biopsy	diffuse type
7	Zuleta	1955	12/M	headache, vomiting	PVG	partial	laminar type
8	Schaerer	1960	42/F	ataxia, nystagmus	PEG	total	fibroblastic
9	Abraham	1963	40/F	headache, vomiting	clinical examination	total	fibroblastic
10	Chaffee	1963	38/F	headache, dysmetria	angiography	total	meningotheial
11	Hoffman	1972	44/F	headache, vomiting	angiography	total	transitional
12	Hoffman	1972	61/M	headache, ataxia	angiography, PEG	total	transitional
13	Rodriguez-Carbajal	1974	49/F	nystagmus, ataxia	angiography, PEG	partial	meningotheial
14	Rodriguez-Carbajal	1974	32/F	headache, vomiting	angiography, PEG	total	meningotheial
15	Kilisek	1975	11/M	headache, vomiting	not reported	total	atypical
16	Magliocco	1978	7/F	headache, vomiting	PVG	total	meningotheial
17	Magliocco	1978	15/M	headache, vomiting	CT, angiography	total	fibroblastic
18	Goekalp	1981	30/F	headache, vomiting	CT, RI scan	total	psammomatous
19	Giromini	1981	14/F	headache, ataxia	CT	total	endotheliomatous
20	Tsuboi	1983	30/F	headache, vomiting	CT, angiography	total	fibroblastic
21	Nagata	1988	52/F	headache, vomiting	CT, angiography	total	fibroblastic
22	Matsumara	1988	62/M	ataxia	CT, MRI,	total	fibroblastic
23	Nakano	1989	58/F	headache, ataxia	CT, MRI,	total	transitional
24	Johnson	1989	53/M	headache, ataxia	CT, MRI	total	osteoblastic
25	Diaz	1990	5/F	headache, vomiting ataxia, nystagmus	CT	total	meningotheial
26	Ceylan	1992	48/M	headache, vomiting	CT	total	angiomatous
27	Ferrara	1994	37/M	diplopia, facial palsy hearing loss	CT, MRI	total	fibroblastic
28	Iseda	1997	47/F	headache	CT, MRI angiography	total	transitional
29	Iseda*	1997	67/F	nystagmus, ataxia	MRI, angiography	total	atypical
30	Present case	1998	61/M	vomiting, dizziness diplopia, nystagmus	MRI	total	atypical

PVG : pneumoventriculography ; PEG : pneumoencephalography ; RI : radioisotope ; CT : computed tomography ; MRI : magnetic resonance imaging ; \* : recurrent case of 23th case

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